

### **REMARKS**

Reconsideration and allowance in view of the foregoing amendments and the following remarks are respectfully requested. Specifically, favorable consideration of pending Claims 1-77 is respectfully requested.

Further, it is respectfully requested that the Attorney Docket Number of this application be corrected to be: MS1-282USC6.

### **THE OBJECTION TO THE SPECIFICATION AND CLAIM 58**

The specification has been amended to insert “®” to indicate registered marks, as required in the Office Action. Thus, the Applicant requests that the objection to the specification be withdrawn.

Further, Claim 58 has been amended to depend from Claim 56, thereby eliminating an informality in the application as filed. It is submitted that this amendment to Claim 58 overcomes the objection under 37 CFR §1.75(c), and therefore it is requested that the objection to Claim 58 be withdrawn.

### **THE REJECTION UNDER 35 U.S.C. §102(e)**

Claims 1-4, 7, 9-12, 15, 17-19, 22, 25, 30, 32, 35, 40, 41, 43-54, 56-58, 69, 73, and 76 were rejected under 35 U.S.C. §102(e) as being anticipated by Barr, et al. (U.S. Patent 6,189,100; hereafter “Barr”). The Applicant respectfully traverses this rejection, and further requests that this rejection be reconsidered and withdrawn.

Barr describes a remote boot process to ensure the integrity of remote boot client data by producing a “secret” to be shared between a client computer and a boot server (col. 6, lines 59-64). This remote boot process does not anticipate the presently rejected claims. More specifically, Barr does not meet the standards for rejecting a claim as being anticipated by a reference, as set forth in MPEP §2131, which includes:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference,” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

In particular, contrary to the rejection, there is no teaching or suggestion in the cited portions of the reference of the claimed “software identity register,” and it is a moot point to consider whether Barr sets such a software identity register to a result of a computed cryptographic function. Accordingly, the rejection is fundamentally deficient relative to Claim 1 and dependent **Claims 2, 4, 7, 9 and 10**, as well.

Further, with regard to **Claim 3**, Barr does not teach or suggest “the software identity register contains the identity of the operating system and in an event that the atomic operation fails to complete correctly, the software identity register contains a value other than the identity of the operating system,” as claimed (emphasis added). That is, in addition to failing to teach a software identity register, Barr does not describe the value contained in an identity register upon both a successful and unsuccessful atomic operation to set an identity of an OS.

The method of **Claim 11** recites, in part:

- identifying a boot block of code in the OS that uniquely describes the OS;
- creating an identity of the OS from the boot block; and
- executing an atomic operation to set the identity of the operating system into the software identity register of the CPU, wherein in an event that the atomic operation completes correctly, the software identity register contains the identity of the operating system.

Once again, Barr does not teach the claimed software identity register of the CPU, and therefore Barr fails to teach the method of Claim 11, and also dependent **Claims 12, 15, 17, and 18**.

Since Barr does not teach a software identity register, it follows that the reference does not create, “an identity of the OS containing the identity from the identity register,” as recited in **Claim 19**, and further does not form, “an OS certificate containing the identity from the software identity register,” as recited in **Claim 22**. Therefore, for at least the reasons set forth above regarding Claim 19, Claims 22 and dependent **Claims 25 and 30** are also distinguishable over Barr.

With regard to the method of **Claim 32**, Barr does not describe a computer system having, among other features, a CPU having a software identity register that holds an identity of an operating system. Therefore, Claim 32 is distinguishable over Barr.

Similar to Claim 32, with regard to the computer of **Claim 35** includes, Barr does not teach a software identity register set to the identity of an operating

system. Thus, it cannot be said that Barr anticipates Claim 35 or dependent **Claims 40 and 41**.

The computer system of **Claim 43** comprises, in part, a subscriber unit configured to, in part:

form an OS certificate containing the identity from the software identity register, information describing the operating system, the challenge nonce, and the CPU public key and to sign the OS certificate using the CPU private key, the subscriber unit returning the OS certificate and the CPU manufacturer certificate to the content provider for evaluation to determine whether to reject or fulfill the request.

Barr does not teach or suggest a subscriber unit to form an OS certificate containing the identity from a software identity register. Thus, Claim 43 and dependent **Claims 44-51** are distinguishable over Barr.

It is further submitted that independent **Claims 52-54** are distinguishable from Barr for at least the reasons set forth above regarding Claims 35 and 43, insofar that the features of Claims 35 and 43 described above are included in Claims 52-54.

With regard to **Claim 56**, Barr does not describe a computer system having, among other features, a CPU having a software identity register that holds an identity of an operating system. Therefore, Claim 56 and dependent **Claims 57 and 58** are distinguishable over Barr.

With regard to **Claims 69 and 73**, Barr fails to teach or suggest, at least, “creating an identity of the OS containing the identity from the software identity register and information describing the operating system” (Claim 69) or “forming an OS certificate containing the identity from the software identity register and

information describing the operating system,” (Claim 73). There is no teaching or suggestion of the above claimed features in the portions of the reference cited in the rejection.

Regarding **Claim 76**, the reference does not describe a software identity register being signed using a private key of a private key/public key pair, as claimed, nor does the rejection cite any description within the reference to anticipate this feature.

Therefore, for at least the reasons set forth above, it is respectfully submitted that Barr fails to teach the features of the presently rejected claims. Thus, it is respectfully requested that the rejection under 35 U.S.C. §102(e) be reconsidered and withdrawn.

#### **THE REJECTIONS UNDER 35 U.S.C. §103(a)**

Claims 5, 13, 33, and 37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barr in view of Angelo (U.S. Patent 5,944,821). The Applicant respectfully traverses this rejection as well, and further requests that this rejection also be reconsidered and withdrawn.

**Claim 5** depends from Claim 3, **Claim 13** depends from Claim 11, **Claim 33** depends from Claim 32, and **Claim 37** depends from Claim 35. All of the aforementioned independent claims have been distinguished over Barr with regard to the outstanding rejection under 35 U.S.C. §102(e), and therefore the arguments provided above may be applied to the present rejection, as well. In addition, none of the above-described deficiencies of Barr, relative to independent Claims 3, 11, 32, and 35, is compensated for by Angelo, nor does

the rejection address any of the features that distinguish the independent claims over Barr.

Furthermore, with regard to Claims 5, 13, and 37, the rejection merely cites Angelo's reference to a hash table containing hash values generated by a secure hash algorithm, and theorizes that "many types of modification detection codes could be utilized" citing the importance "that each piece of software to be tracked has a corresponding and fairly unique value that represents the unaltered state of the software..." However, the rejection is not addressing the claimed elements. That is, Angelo simply does not teach, nor does the rejection address, an identity of an operating system comprising a hash digest of a block of code from the operating system (Claims 5 and 37) or a digest formed from hashing a boot block (Claim 13).

With regard to Claim 33, neither FIG. 2 nor FIG. 3 of Angelo contemplates the forming of a generator key or storage key. Therefore, the mere inclusion of a hash algorithm therein fails to obviate the claimed storage key SK created by "SK=SHA(CPU-specific secret, OS-specific data, seed)."

Accordingly, for at least the reasons advanced above, it is respectfully submitted that the rejection of Claims 5, 13, 33, and 37 under 35 U.S.C. §103(a) should be withdrawn.

Claims 6, 8, 14, 16, 21, 23, 24, 39, 42, 55, 59-62, and 71 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barr in view of Sadowsky, et al. (U.S. Patent 6,230,285; hereafter "Sadowsky"). The Applicant respectfully

traverses this rejection as well, and further requests that this rejection also be reconsidered and withdrawn.

**Claims 6 and 8** depend from Claim 3, **Claims 14 and 16** depend from Claim 11, **Claim 21** depends from Claim 19, **Claims 23 and 24** depend from Claim 22, **Claim 39** depends from Claim 35, **Claims 59-62** depend from Claim 56, and **Claim 71** depends from Claim 69. The aforementioned independent claims have been distinguished over Barr with regard to the outstanding rejection under 35 U.S.C. §102(e), and therefore the arguments provided above may be applied to the present rejection, as well. In addition, none of the above-described deficiencies of Barr, relative to independent Claims 3, 11, 19, 22, 35, 56, and 69, is compensated for by Sadowsky, nor does the rejection address any of the features that distinguish the independent claims over Barr.

Regarding Claims 6, 8, 14, 16, 21, 24, 39, 42, 55, 59-62 and 71, the rejection states that Sadowsky suggests appending at least a portion of the (presumably of the operating system) the boot file, and that combining the boot file described by Sadowsky with Barr would be obvious to one of ordinary skill in an effort to show the cause of boot failure. However, Sadowsky describes the bootlog.txt file as containing events occurring during boot (col. 4, lines 61-64), with no suggestion that the identity of the operating system constitutes an “event” occurring during boot. Further, Sadowsky determines the cause of boot failure taking the chronology of boots into consideration, and there is not even an implied suggestion that the operating system identity is desirable for such determination.

Further still, Sadowsky makes no mention of any item from the bootlog.txt file being used to form an OS certificate, as asserted in the rejection. It is respectfully submitted that the proposed combination of references fails to render Claims 21, 23, and 71 obvious, as purported in the rejection, without further substantiation to the statement that “this information is shared with the certificate information suggested by Barr.”

Therefore, for at least the reasons advanced above, it is respectfully submitted that the rejection of Claims 6, 8, 14, 16, 21, 23, 24, 39, 42, 55, 59-62, and 71 under 35 U.S.C. §103(a) should be withdrawn.

Claims 63-68, 74, and 77 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barr in view of LeBourgeois (U.S. Patent 6,026,166). The Applicant respectfully traverses this rejection as well, and further requests that this rejection also be reconsidered and withdrawn.

**Claims 63-68** depend from Claim 56, **Claim 74** depends from Claim 73, and **Claim 77** depends from Claim 76. All of the aforementioned independent claims have been distinguished over Barr with regard to the outstanding rejection under 35 U.S.C. §102(e), and therefore the arguments provided above may be applied to the present rejection, as well. In addition, none of the above-described deficiencies of Barr, relative to independent Claims 56, 73 and 76, is compensated for by Angelo, nor does the rejection address any of the features that distinguish the independent claims over Barr.

With further regard to Claims 63, 64, 74 and 77, the rejection notes that LeBourgeois describes a digital certification method for which a signature is



dependent upon the user identity (col. 3, lines 54-57), and further asserts that “the user would be the device driver of the CPU.” The Applicant respectfully submits that neither LeBourgeois nor Barr would suggest the user being a device driver, particularly in view of the further description provided by LeBourgeois submitting that, “the first user identity can be, for example, a PIN provided by the user,” (col. 3, lines 57-58).

With further regard to Claims 65-68, neither Barr nor LeBourgeois teaches or suggests the third party associating a level of trust for the user computer using a signed OS certificate, as recited in Claim 56 from which Claim 65 depends. Further, Claims 66-68 depend from Claim 65 and are therefore distinguished over the proposed combination of references for the reasons just submitted.

Therefore, for at least the reasons advanced above, it is respectfully submitted that the rejection of Claims 63-68, 74, and 77 under 35 U.S.C. §103(a) should be withdrawn.

Claims 27-29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barr in view of Barlow, et al. (U.S. Patent 6,038,551; hereafter “Barlow”). The Applicant respectfully traverses this rejection as well, and further requests that this rejection also be reconsidered and withdrawn.

**Claims 27-29** depend from Claim 22, which is an independent claims that has been distinguished over Barr with regard to the outstanding rejection under 35 U.S.C. §102(e), and therefore the arguments provided above may be applied to the present rejection, as well. In addition, none of the above-described

deficiencies of Barr, relative to independent Claim 22, is compensated for by Angelo, nor does the rejection address any of the features that distinguish the independent claims over Barr.

With further regard to Claim 27, Barlow does not teach or suggest that the certificate signed by a trusted certifying authority contains a CPU public key. Further, neither Barr nor Barlow teaches a combination of certificates, and therefore neither reference even suggests an OS certificate and a manufacturer certificate being evaluated for an identical CPU public key.

Therefore, for at least the reasons advanced above, it is respectfully submitted that the rejection of Claims 27-29 under 35 U.S.C. §103(a) should be withdrawn.

**CONCLUSION**

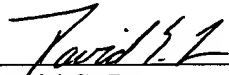
The remaining references of record have been considered. It is respectfully submitted that they do not compensate for the deficiencies of any of the references utilized in rejecting the pending claims.

All objections and rejections having been addressed, it is respectfully submitted that the present application is now in condition for allowance. Early and forthright issuance of a Notice of Allowability is respectfully requested.

Respectfully Submitted,

Lee & Hayes, PLLC

Dated: 11/5/2003

  
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David S. Lee  
Reg. No. 38,222  
(425) 844-0791

Lee & Hayes, PLLC  
421 W. Riverside Avenue, Suite 500  
Spokane, WA 99201